

Workshop: Accelerated Reliability Testing

Date: 2020.00

Venue:

The goal of the course is to enable the designers and test engineers to conduct accelerated reliability tests (AST, ALT) in practice. The methods with examples are presented and can be used in product design projects. Previous knowledge needed: basics of statistics. Bring a scientific calculator with you.

Accelerated Reliability Testing	
8:15	<i>WELCOME and introduction to course program + coffee</i>
8:30 – 11:45	1. Introduction: Traditional Lifetime Testing and Reliability Testing Today - Traditional: Reliability determination tests and Reliability development tests (accelerated tests) - Problems with traditional reliability testing
	2. Design for Reliability, Role of Testing - Managing product reliability - Reliability methods supporting the tests: Risk Analysis and FMECA - Scheduling of testing in product development
	3. Methods of Accelerated Life Testing (ALT) - Test time compression with elevated stresses - Failure models and failure distributions, life time determination
11:45	<i>LUNCH</i>
12:15-16:15	4. Techniques of Accelerated Stress Testing (AST) - Elevated stresses in revealing product weak links - Failure mechanisms as sources of failure modes
	<i>COFFEE break</i>
	5. Conditioning in AST - Test cycle planning to reveal relevant failure modes - Selecting proper stresses, system vs. subsystem testing, functional tests
	6. Implementation of AST - Effective approaches to stress testing - Failure analyses, failure database and Lessons Learned
	<i>CONCLUSIONS, discussion</i>

Contact/ Mr. Antti Lyytikäinen, M.Sc., +358-400-800 022
Lecturers: Mr. Arto Salminen, Tech.Lic., +358-40-505 8885
 Reliability Academy, **email:** info@reliabilityacademy.fi